

03-28-02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Sligar and Bayburt

Serial No. 09/990,087

Filed: November 20, 2001

For: MEMBRANE SCAFFOLD PROTEINS



Group: 1635

Examiner: Unassigned

Confirmation No.: 1280

#91635
mw
TECH CENTER 1600/2900

APR 01 2002

RECEIVED

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, DC 20231.

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail, receipt no.: 827990800 US addressed to: The Commissioner of Patents, Washington, D.C. 20231	
3/27/02 Date	 J. Novella

Sir:

This application is a Continuation-in-Part of United States Provisional Application No. 60/252,233, filed November 20, 2000.

The Examiner is respectfully requested to consider the references, copies enclosed, which may qualify as prior art. For the Examiner's convenience, the references are listed on the attached Patent and Trademark Office Form PTO-1449.

The references and information provided herewith are cited in a spirit of forthrightness and cooperation to enable Applicants to obtain that measure of protection for the invention to which there is entitlement. However, no representation is made that the listed art actually qualifies as prior art under the patent statute and the mere use of PTO-1449 is not an admission that all listed references are prior art. No representation is made that Applicants know of the best art.

References listed in the PTO Form 1449 submitted herewith which do not specify the month of publication have a year of publication sufficiently earlier than the effective US filing date and any foreign priority date so that the particular month of publication is not in issue.

It is believed that this submission does not require the payment of any fees. If this is incorrect, however, please charge any requisite fees to Deposit Account No. 07-1969.

Respectfully submitted,



Donna M. Ferber
Reg. No. 33,878

GREENLEE, WINNER AND SULLIVAN, P.C.
5370 Manhattan Circle, Suite 201
Boulder, CO 80303
Telephone: (303) 499-8080
Facsimile: (303) 499-8089
E-mail: winner@greenwin.com

Attorney docket No. 87-00
jcn: March 28, 2002

RECEIVED

APR 01 2002

TECH. CENTER 160012900

FORM PTO 1449

Page 1 of 3

PATENT DOCKET NO.: 87-00 SERIAL NO.: 09/990,087 FILING DATE: November 20, 2001
 APPLICANT: Sligar and Bayburt Group: 1635

U.S. PATENT DOCUMENTS

	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
1	6,172,262 B1	01/09/01	McQuade et al.	564	182	01/27/99
2	6,248,353 B1	06/19/01	Singh	424	450	12/10/99

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes/No
3	WO 01/02551 A2	01/11/01	PCT	C12N 15/00		

OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, etc.)

4	Atkinson, D. and Small, D.M., "Recombinant Lipoproteins: Implications for Structure and Assembly of Native Lipoproteins" (1986) Ann. Rev. Biophys. Chem. 15:403-456
5	Bayburt, T.H. et al., "Reconstitution and Imaging of a Membrane Protein in a Nanometer-Size Phospholipid bilayer" (1998) J. Struct. Biol. 123:37-44
6	Bayburt, T.H. et al., "Single Molecule Height Measurements on a Membrane Protein in Nanometer-Scale Phospholipid Bilayer Disks" (June 17, 2000) Langmuir 16(14):5993-5997
7	Boguski, M.S. et al., "On computer-assisted analysis of biological sequences: proline punctuation, consensus sequences, and apolipoprotein repeats" (1986) J. of Lipid Research 27:1011-1034
8	Borhani, D.W. et al., "Crystal structure of truncated human apolipoprotein A-I suggests a lipid-bound conformation" (November 1997) Proc. Natl. Acad. Sci. USA 94:12291-12296
9	Brouillette, C.G. et al., "Structural Studies of Apolipoprotein A-I/Phosphatidylcholine Recombinants by High-Field Proton NMR, Nondenaturing Gradient Gel Electrophoresis, and Electron Microscopy" (1984) Biochemistry 23:359-367
10	Carlson, J. W. et al., "Nanopatterning Phospholipid Bilayers" (March 17, 2000) Langmuir 16(8):3927-3931
11	Carlson, J.W. et al., "Imaging and Manipulation of High-Density Lipoproteins" (September 1997) Biophys. J. 73:1184-1189
12	Dalton, M.B. and Swaney, J.B., "Structural and Functional Domains of Apolipoprotein A-I within High Density Lipoproteins" (September 15, 1993) J. Biol. Chem. 268(26):19274-19283
13	Durbin, D.M. and Jonas, A., "Lipid-free apolipoproteins A-I and A-II promote remodeling of reconstituted high density lipoproteins and alter their reactivity with lecithin:cholesterol acyltransferase" (December 1999) J. Lipid Research 40(12):2293-2302
14	Fidge, N.H., "High density lipoprotein receptors, binding proteins, and ligands" (February 1999) J. Lipid Research 40(2):187-201
15	Fielding, P.E. and Fielding, C.J., "Dynamics of lipoprotein transport in the circulatory system" <u>Biochemistry of Lipids, Lipoproteins, and Membranes</u> . D.E. Vance and J. Vance. (1991) Amsterdam, Elsevier Press Chapter 15, pp. 427-459

FORM PTO 1449		Page 2 of 3
ATTY DOCKET NO.: 87-00	SERIAL NO.: 09/990,087	FILING DATE: November 20, 2001
APPLICANT: Sligar and Bayburt		Group: 1635

RECEIVED

APR 01 2002

TECH CENTER 1600/2900

16	Forte, T.M. et al., "Electron microscopic study on reassembly of plasma high density apoprotein with various lipids" (1971) Biochim. Biophys. Acta 248:381-386
17	Frank, P.G. et al., "Deletion of Central α -Helices in Human Apolipoprotein A-I: Effect on Phospholipid Association" (1997) Biochemistry 36:1798-1806
18	Friis, E.P. et al., "An approach to long-range electron transfer mechanisms in metalloproteins: <i>in situ</i> scanning tunneling microscopy with submolecular resolution" (February 1999) Proc. Natl. Acad. Sci. USA 96:1379-1384
19	Glomset, J.A., "The plasma lecithin:cholesterol acyltransferase reaction" (1968) J. Lipid Research 9:155-167
20	Holvoet, P. et al., "Phospholipid Binding and Lecithin-Cholesterol Acyltransferase Activation Properties of Apolipoprotein A-I Mutants" (1995) Biochemistry 34:13334-13342
21	Jin, L et al., "Surface Plasmon Resonance Biosensor Studies of Human Wild-Type and Mutant Lecithin Cholesterol Acyltransferase Interactions with Lipoproteins" (November 05, 1999) Biochemistry 38(47):15659-15665
22	Jonas, A., "Reconstitution of High Density Lipoproteins" (1986) Methods Enzymol. 128:553-582
23	Jonas, A., "Lecithin-cholesterol acyltransferase in the metabolism of high-density lipoproteins"(1991) Biochim. Biophys. Acta 1084:205-220
24	Jonas, A. et al., "Defined Apolipoprotein A-I Conformation in Reconstituted High Density Lipoprotein Discs"(March 25, 1989) J. Biol. Chem. 264(9):4818-4824
25	Koppaka, V. et al., "The Structure of Human Lipoprotein A-I" (May 1999) J. Biol. Chem. 274(21):14541-14544
26	Miller, J.P. et al., "X-ray Diffraction Analysis of Cytochrome P450 2B4 Reconstituted into Liposomes" (1996) Biochemistry 35:1466-1474
27	Mukhopadhyay, R. et al., "A scanning tunneling microscopy study of <i>Clostridium pasteurianum</i> rubredoxin" (March 31, 2000) J. Inorg. Biochem. 78:251-254
28	Phillips, J.C. et al., "Predicting the Structure of Apolipoprotein A-I in Reconstituted High-Density Lipoprotein Disks" (November 1997) Biophysics Journal 73:2337-2346
29	Robinson, C.R. and Sligar, S.G., "Changes in solvation during DNA binding and cleavage are critical to altered specificity of the <i>EcoRI</i> endonuclease" (March 1998) Proc. Natl. Acad. Sci. USA 95:2186-2191
30	Robinson, C.R. and Sauer, R.T. "Optimizing the stability of single-chain proteins by linker length and composition mutagenesis " (May 1998) Proc. Natl. Acad. Sci. USA 95(11):5929-5934
31	Rogers, D.P. et al., "Structural Analysis of Apolipoprotein A-I: Effects of Amino-and Carboxy-Terminal Deletions on the Lipid-Free Structure" (1998) Biochemistry 37:945-955
32	Rogers, D.P. et al., "The Lipid-Free Structure of Apolipoprotein A-I: Effects of Amino-Terminal Deletions" (1998) Biochemistry 37(34):11714-11725



FORM PTO 1449		Page 3 of 3
ATTY DOCKET NO.: 87-00	SERIAL NO.: 09/990,087	FILING DATE: November 20, 2001
APPLICANT: Sligar and Bayburt		Group: 1635



33	Salamon, Z., "Coupled Plasmon—Waveguide Resonators: A New Spectroscopic Tool for Probing Proteolipid Film Structure and Properties" (November 1997) Biophys. Journal 73:2791-2797
34	Schafmeister, C. et al., "Structure at 2.5 Å of a Designed Peptide That Maintains Solubility of Membrane Proteins" (October 1993) Science 262:734-738
35	Segrest, J.P. et al., "A Detailed Molecular Belt Model for Apolipoprotein A-I in Discoidal High Density Lipoprotein" (November 5, 1999) J. Biol. Chem. 274(45):31755-31758
36	Sklar, L.A. et al., "Solubilization and Display of G Protein-Coupled Receptors on Beads for Real-Time Fluorescence and Flow Cytometric Analysis" (May 2000) BioTechniques 28(5):976-985
37	Tocanne, J.F. et al., "Lipid domains and lipid/protein interactions in biological membranes" (1994) Chemistry and Physics of Lipids 73:139-158
38	Wald, J.H. et al., "Investigation of the Lipid Domains and Apolipoprotein Orientation in Reconstituted High Density Lipoproteins by Fluorescence and IR Methods" (November 1990) J. Biol. Chem. 265(32):20044-20050
39	Wald, J. H. et al., "Structure of Apolipoprotein A-I in Three Homogeneous, Reconstituted High Density Lipoprotein Particles" (November 1990) J. Biol. Chem. 265(32):20037-20043
40	Wang, M. et al., "Three -dimensional structure of NADPH-cytochrome P450 reductase: Prototype for FMN and FAD-containing enzymes" (1997) Proc. Natl. Acad. Sci. USA 94:8411-8416
41	Wlodawer, A. et al., "High-Density Lipoprotein Recombinants: Evidence For A Bicycle Tire Micelle Structure Obtained By Neutron Scattering and Electron Microscopy" (August 1979) FEBS Lett. 104(2):231-235 Segr35
42	Zuck, P. et al., "Ligand-receptor binding measured by laser-scanning imaging" (September 1999) Proc. Natl. Acad. Sci. USA 96:11122-11127

EXAMINER	DATE CONSIDERED
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.</p>	